

REMARKS

Pending claims 69-72 in this application were made subject to a restriction requirement by the Examiner. As a consequence, claims 69-72 were withdrawn from further consideration by the Examiner as being drawn to a non-elected invention. Accordingly, Applicants have canceled these claims without prejudice or disclaimer.

Claims 2-12, 39-41 and 61-68 have been examined, with claims 39, 61 and 66 being the independent claims.

The Examiner rejected claim 5 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded by Applicants as the invention. The Examiner rejected claims 2, 10 and 39 under 35 U.S.C. § 102(e) as being anticipated by Yahiro (U.S. Patent No. 6,182,719) or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Yahiro. The Examiner rejected claims 4-6 under 35 U.S.C. § 103(a) as being obvious over Yahiro as applied to claims 2, 10, 39, further in view of Meltzer (U.S. Patent No. 5,306,510). The Examiner rejected claims 7-9 under 35 U.S.C. § 103(a) as being obvious over Yahiro in view of Meltzer as applied to claims 4-6, further in view of Maeda (U.S. Patent No. 6,589,483). Finally, the Examiner rejected claims 11-12 and 61 under 35 U.S.C. § 103(a) as being obvious over Yahiro as applied to claims 2, 10, 39, further in view of Yiu (U.S. Patent No. 6,464,943).

Applicants gratefully acknowledge the Examiner's indication that claims 3, 40-41 and 62-65, while objected to as being dependent upon a rejected base claim, would be allowable if rewritten in independent form to include all the limitations of the base claim and any intervening claims. Applicants also gratefully acknowledge the Examiner's allowance of claims 66-68.

As noted above, the Examiner rejected claim 5 under 35 U.S.C. § 112, second paragraph. Specifically, the Examiner found that it is unclear what is meant by the phrase "adjacent ones of the openings of the chambers." Applicants have amended claim 5 as suggested by the Examiner to delete the words "ones of the". Accordingly, Applicants request that the rejection of claim 5 under 35 U.S.C. § 112, second paragraph, be withdrawn.

As noted above, the Examiner rejected independent claim 39, as well as claims 2 and 10, under 35 U.S.C. § 102(e) as being anticipated by Yahiro or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Yahiro. Without acceding to the propriety of the rejection, but in order to expedite the allowance of this application, Applicants have amended claim 39 to recite,

inter alia, that the dispensing head is slidable into and out of the housing along the slideways that extend in a direction that is generally perpendicular to the direction in which the liquid is expelled from the plurality of chambers.

Yahiro does not disclose or suggest slideways for supporting the dispensing head such that the dispensing head is unattached to the slideways to allow it to be slidable into and out of the housing in a direction that is generally perpendicular to the direction in which liquid is expelled from the chambers. In Yahiro, the dispensing head appears to be slidable along the Z-axis table 33 (Fig. 2) in the same direction as the direction in which fluid is expelled, namely the vertical direction, as referenced in Yahiro. There is no suggestion at all in Yahiro that the dispensing head could be slidable in a direction that is generally perpendicular to the vertical direction. By contrast, the dispensing head of the present invention slides on slideways that are generally perpendicular to the direction in which fluid is expelled out of the pipette tips. Furthermore, Yahiro does not disclose or suggest a dispensing head that is unattached to the slideways so that the dispensing head is slidable into and out of the housing along the slideways. The distribution head of Yahiro slides on guide rails 23, but Yahiro does not suggest that the dispensing head can be removed from or inserted back into the housing, or L-shaped block 21 of Fig. 2. For at least these reasons, it is submitted that claim 39, as amended, is patentable over Yahiro. Therefore, the rejections of claim 39 under § 102(e) as being anticipated by Yahiro, and under § 103(a) as being obvious over Yahiro, should be withdrawn.

Claims 2-10 and 41 and 42 are dependent from claim 39, and are allowable for at least the same reasons as claim 39, as well as for the reasons indicated by the Examiner in paragraph 10 of the Office Action.

As previously noted, the Examiner rejected independent claim 61, as well as claims 11 and 12, under 35 U.S.C. § 103(a) as being obvious over Yahiro in view of Yiu. Without acceding to the propriety of the rejection, but in order to expedite the allowance of this application, Applicants have amended claim 61 to recite, *inter alia*, that the liquid dispenser includes a tip tray that is removably mounted with respect to the housing, and that has a top tray surface and a bottom tray surface wherein the top tray surface faces the dispensing head; and that the plurality of removable pipette tips disposed at least partially in the tip tray have a first end with an enlarged opening that extends above the top tray surface.

There is no motivation for one of skill in the art to combine the teachings of Yahiro with those of Yiu. In fact, one of ordinary skill in the art would not combine Yahiro with Yiu, since Yahiro and Yiu relate to two very different technologies. Yahiro relates to a liquid distribution apparatus, such as a pipetting device, that is somewhat similar to that of the present invention in which liquid is drawn into pipette tips positioned in a distribution head, and is then expelled from the same pipette tips. Yiu does not disclose a pipetting device. Yiu discloses an evaporator device in which a heated gas such as air or nitrogen is introduced to a manifold 18 via an upper connector 40 and is then forced through hollow tubes to evaporate diluent from liquid or semi-liquid disposed in an assay tray (see, e.g., col. 6, lines 28-40; col. 8, lines 16-39; and Fig. 8). Contrary to Yahiro, Yiu does not withdraw a liquid from a source and thereafter expel the liquid at another location. There is no suggestion whatsoever in Yahiro to modify the Yahiro device in any manner. Moreover, even if one were motivated to modify the Yahiro device, one would not have looked to the device of Yiu, since the device of Yiu is not a pipetting device. The two devices are not compatible or easily combinable. Since the apparatus of Yiu does not withdraw a measured amount of liquid from a source and expel another measured amount of liquid, as in Yahiro, it is completely unclear how one would combine any embodiment of Yiu, such as that shown in Fig. 12, with Yahiro to form a working and operative pipetting system. One would only have thought to combine Yiu with Yahiro if one had the hindsight benefit of the teachings of Applicants herein.

Nonetheless, if one were to combine Yahiro with Yiu, such a combination would not disclose or suggest the invention as presently recited in claim 61. Claim 61 now specifically recites a tray which carries pipette tips. Claim 61 also recites that the first end of each tip is mounted about an opening of an associated chamber to be in direct fluid communication with its associated chamber with no nozzle disposed between the first end of the tip and the chamber opening or extending into the first end of the tip. Finally, claim 61 now recites that the first end of each tip extends above the top surface of the tray. As conceded by the Examiner, Yahiro does not disclose that the device may comprise a dispense head that may be inserted into the device without a nozzle extending into the tips. Yiu also fails to disclose such a structure. In Yiu, the hollow tubes of Fig. 1 are not disposable pipette tips, and do not extend above the top surface of support member 30. While Figures 11 and 12 disclose another embodiment of Yiu which contemplates the use of pipette tips, these pipette tips are mounted onto nozzles 100. Moreover,

these pipette tips 102 do not extend above the top surface of support member 30 and are not in direct fluid communication with any chambers containing a piston. Thus, even if these two references were combined, it is clear that no matter how the resulting apparatus was configured, it would not include a tray with pipette tips in which the upper ends extend above the upper surface of the pipette tip tray, and in which the upper ends of the pipette tips are in direct fluid communication with associated chambers having associated pistons, with no nozzle disposed between the first end of the tip and the chamber opening or extending into the first end of the tip, all as recited in claim 61. Therefore, it is respectfully submitted that claim 61 is allowable over the combination of Yiu and Yahiro, and that the rejection of claim 61 under § 103(a) as being obvious over Yahiro in view of Yiu should be withdrawn.

Claims 11 and 12 are dependent from claim 61 and are allowable for at least the same reasons as claim 61.

Applicants have added new claims 73-76. New claim 73 constitutes claim 62 rewritten in independent form to include all the limitations of claim 61. Claim 74 constitutes claim 62 rewritten in independent form to include all the limitations of claim 61. Claims 75 and 76 are claims 64 and 65 rendered dependent from claim 74. Since the Examiner stated that these claims would be allowable if so rewritten, it is submitted that all of claims 73-76 are allowable.

CONCLUSION

In view of the foregoing amendments and remarks, this application is now in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,

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